



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/749,656	12/28/2000	Fabrice Della Mea	Q62485	8724

7590 01/20/2004

SUGHRUE, MION, ZINN, MACPEAK & SEAS, PLLC  
Suite 800  
2100 Pennsylvania Avenue, N.W.  
Washington, DC 20037-3213

EXAMINER

RAMPURIA, SHARAD K

ART UNIT PAPER NUMBER

2683

DATE MAILED: 01/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/749,656

Applicant(s)

DELLA MEA, FABRICE

Examiner

Sharad Rampuria

Art Unit

2683

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 31 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

Art Unit: 2683

***Response to Amendment***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Battin et al., Tseng et al., Oestreich, Yahagi.

Applicant's arguments with respect to claims 1-18 have been considered but are moot in view of the new ground(s) of rejection.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mayer in view of Abe.

1. Regarding claim 1, Mayer disclosed A method of establishing the tandem free operation mode for a mobile station to mobile station and cell to cell call in a cellular mobile telephone system. (pg.5; 0013)

Mayer fails to disclosed a step of selecting a common coding mode for each mobile station and the selection of a common coding mode takes account of the traffic load in at least one cell. However, Abe teaches in an analogous art, that method includes a step of selecting a common coding mode (Col.3; 28-43) for each mobile station and the selection of a common

Art Unit: 2683

coding mode takes account of the traffic load in at least one cell. (Col.8; 64-col.9; 9) Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to include a step of selecting a common coding mode for each mobile station and the selection of a common coding mode takes account of the traffic load in at least one cell in order to provide a mobile communication system that can dynamically establish a communication mode of individual mobile station.

2. Regarding claim 2, Mayer disclosed all the particulars of the claim except common coding mode is selected on the basis of lists of coding modes supported by each mobile station and if the corresponding mobile station is in a busy cell the list of supported coding modes is shortened to eliminate therefrom the coding modes that consume the most resources. However, Abe teaches in an analogous art, that A method according to claim 1, wherein said common coding mode is selected on the basis of lists of coding modes supported by each mobile station and if the corresponding mobile station is in a busy cell (Col.8; 64-col.9; 9) the list of supported coding modes is shortened to eliminate there from the coding modes that consume the most resources. (Col.3; 28-43) Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to include common coding mode is selected on the basis of lists of coding modes supported by each mobile station and if the corresponding mobile station is in a busy cell the list of supported coding modes is shortened to eliminate therefrom the coding modes that consume the most resources in order to provides a mobile communication system that can dynamically establish a communication mode of individual mobile station.

3. Regarding claim 3, Mayer disclosed all the particulars of the claim except a common coding mode list. However, Abe teaches in an analogous art, that A method according to claim 2,

Art Unit: 2683

wherein a common coding mode is selected on the basis of non-shortened lists of supported coding modes if no common coding mode can be selected on the basis of lists of supported coding modes at least one of which is a shortened list. (Col.3; 28-43) Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to include a common coding list mode in order to provides a mobile communication system that can dynamically establish a communication mode of individual mobile station.

4. Regarding claim 4, Mayer disclosed all the particulars of the claim except a common coding mode list. However, Abe teaches in an analogous art, that A method according to claim 3, wherein the criterion for selecting a common coding mode on the basis of lists of coding modes supported by each mobile station is a quality optimization criterion. (Col.3; 28-43) Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to include a common coding list mode in order to provides a mobile communication system that can dynamically establish a communication mode of individual mobile station.

5. Regarding claim 5, Mayer disclosed all the particulars of the claim except a common coding mode list. However, Abe teaches in an analogous art, that A method according to claim 2, wherein common coding modes for each mobile station are initially selected independently of each other and a list of supported coding modes is shortened only if the coding mode initially selected for the corresponding mobile station is additionally one of the coding modes consuming the least resources. (Col.3; 28-43) Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to include a common coding list mode in order to provides a mobile communication system that can dynamically establish a communication mode of individual mobile station.

Art Unit: 2683

6. Regarding claim 6, Mayer disclosed all the particulars of the claim except common coding mode list. However, Abe teaches in an analogous art, that A method according to claim 2, wherein coding modes for each mobile station are initially selected independently of each other, the method further determines if the coding modes initially selected for each mobile station are identical, and: if they are identical, the corresponding coding mode constitutes said common coding mode, if they are not identical, said common coding mode is selected on the basis of said lists of supported coding modes for each mobile station. (Col.3; 28-43) Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to include a common coding list mode in order to provides a mobile communication system that can dynamically establish a communication mode of individual mobile station.

7. Regarding claim 7, Mayer disclosed all the particulars of the claim except a common coding mode list. However, Abe teaches in an analogous art, that A method according to claim 2, including at least one step during which an entity of said system handling the call for each mobile station communicates a list of supported coding modes for that mobile station to a like entity handling the call for the other mobile station and a subsequent step during which each entity selects a common coding mode on the basis of lists of supported coding modes for each mobile station and as a function of the same criterion. (Col.3; 28-43) Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to include a common coding list mode in order to provides a mobile communication system that can dynamically establish a communication mode of individual mobile station.

8. Regarding claim 8, Mayer disclosed all the particulars of the claim except a common coding mode list. However, Abe teaches in an analogous art, that A method according to claim 6,

Art Unit: 2683

including at least one step during which an entity of said system handling the call for each mobile station communicates a list of supported coding modes for that mobile station to a like entity handling the call for the other mobile station and a subsequent step during which each entity selects a common coding mode on the basis of lists of supported coding modes for each mobile station and as a function of the same criterion, and determines if the coding modes initially selected for each mobile station are identical. (Col.3; 28-43) Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to include a common coding list in order to provides a mobile communication system that can dynamically establish a communication mode of individual mobile station.

9. Regarding claim 9, Mayer disclosed A method according to claim 1, wherein said system is GSM. (pg.1; 0012)

10. Regarding claim 10, Mayer disclosed A method according to claim 1, wherein one of said coding modes consuming the least resources is half-rate mode. (pg.1; 0007)

11. Regarding claim 11, Mayer disclosed A method according to claim 1, wherein one of said coding modes consuming the most resources is full-rate mode. (pg.1; 0007)

12. Regarding claim 12, Mayer disclosed A method according to claim 1, wherein one of said coding modes consuming the most resources is enhanced full-rate mode. (pg.1; 0007)

13. Regarding claim 13, Mayer disclosed A cellular mobile telephone system for implementing a method according to claim 1, the system including, for establishing the tandem free operation mode for a mobile station to mobile station and cell to cell call, means for selecting a common coding mode for each mobile station taking account of the traffic load in at least one cell. (pg.5; 0013)

Mayer fails to disclosed a step of selecting a common coding mode for each mobile station and the selection of a common coding mode takes account of the traffic load in at least one cell. However, Abe teaches in an analogous art, that method includes a step of selecting a common coding mode (Col.3; 28-43) for each mobile station and the selection of a common coding mode takes account of the traffic load in at least one cell. (Col.8; 64-col.9; 9) Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to include a step of selecting a common coding mode for each mobile station and the selection of a common coding mode takes account of the traffic load in at least one cell in order to provide a mobile communication system that can dynamically establish a communication mode of individual mobile station.

14. Regarding claim 14, Mayer disclosed all the particulars of the claim except common coding mode. However, Abe teaches in an analogous art, that A method according to claim 1, wherein a common coding mode is selected for a transcoder of each mobile station. (Col.3; 28-43)

Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to include common coding mode in order to provides a mobile communication system that can dynamically establish a communication mode of individual mobile station.

15. Regarding claim 15, Mayer disclosed A method according to claim 4, wherein a full rate or an enhanced full rate is shortened as a common mode for quality optimization criterion if FR and EFR mode is supported in common by each mobile station. (pg.1; 0007)

16. Regarding claim 16, Mayer disclosed A method according to claim 2, wherein the list of supporting coding modes is shortened to HR mode if the coding mode initially selected for a mobile station is HR mode and the corresponding cell is busy. (pg.1; 0007)



Art Unit: 2683

17. Regarding claim 17, Mayer disclosed all the particulars of the claim except monitoring the traffic. However, Abe teaches in an analogous art, that A method according to claim 16, wherein the cell is busy if a quality of resources allocated in the cell during a given period is greater than a given threshold. (Col.8; 64-col.9; 9) Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to include monitoring the traffic in order to provide a mobile communication system that can dynamically establish a communication mode of individual mobile station.


18. Regarding claim 18, Mayer disclosed A method according to claim 3, wherein said non-shortened list comprises coding modes HR, FR, and EFR. (pg.1; 0007)

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sharad Rampuria whose telephone number is 703-308-4736. The examiner can normally be reached on Mon-Thu. (8:15-5:45) alternate Fri.( 8:15-4:45).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Trost can be reached on 703-308-5318. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9314 for regular communications and 703-872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-4700.

Sharad Rampuria  
January 8, 2004

  
WILLIAM TROST  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600